

Minor Source Permit Program Recommendations

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Prepared by
Bill Walker

Purpose

The primary purpose of the minor permit program is given by 40 C.F.R. 51.160. This reads in part:

- (a) Each plan must set forth legally enforceable procedures that enable the State or local agency to determine whether the construction or modification of a facility, building, structure or installation, or combination of these will result in –*
 - (1) A violation of applicable portions of the control strategy; or*
 - (2) Interference with attainment or maintenance of a national standard in the State in which the proposed source (or modification) is located or in a neighboring State.*
- (b) Such procedures must include means by which the State or local agency responsible for final decision-making on an application for approval to construct or modify will prevent such construction or modification if –*
 - (1) It will result in a violation of applicable portions of the control strategy;*
or
 - (2) It will interfere with the attainment or maintenance of a national standard.*

And

- (d) The procedures must provide that approval of any construction of modification must not affect the responsibility of the owner or operator to comply with applicable portions of the control strategy.*

The requirements for such a permit program are further described in 40 C.F.R. 51.160(c) – (f).

A secondary purpose is to enable permittees to avoid major source classification when actual emissions are substantially below the source's potential to emit.

Elements of the Minor Source Permit Program

The following are my recommendations for a new minor permit program. Most discussions of other state programs will refer to the 12 states surveyed for us by RTP Environmental. Tables summarizing their findings are attached at the end of this document.

500. General provisions

A stationary source that meets the criteria for more than one classification must satisfy the requirements for each of those classifications.

502 – 514 Classifications

These sections would say whether a permit for the classification is needed before construction, to operate, or both.

Other states

Each minor program has to have criteria for who needs a permit. Of the 12 other states surveyed, half have emission based thresholds. All but possibly one of the 12 have lists of sources that are exempt. Those with no emission-based thresholds rely on exemptions only.

The emission thresholds ranged from 5 tpy actual emissions to 100 tpy potential emissions per pollutant.

502. Ambient Air Quality Stationary Sources and Modifications

Source Category Basis

Retain the current classifications in 18 AAC 50.300(b). Add rock crushers.¹

Minor permit required for

- ◆ Minor permit to operate existing stationary source in any of these categories
- ◆ Minor permit to construct and operate new source or existing source being modified so that it is subject to the classification

Classifications would not require

¹The department has long used this list of sources to include stationary sources with the potential to interfere with the attainment or maintenance of ambient standards. I do not have information sufficient to show that any of these categories should be deleted. I do have information to support adding one category.

Dispersion modeling done to support the general permit for rock crushers predicted that they have the potential to violate ambient air quality standards, even if they are not located at major sources. The general permit is a Title V permit required because crushers can contain equipment subject to 40 C.F.R. 60, Subpart OOO. Under the new statute, Title V permits will no longer be needed for most NSPS affected facilities unless they are part of a major source. Permitting crushers at minor stationary sources would require classification in the minor permit program.

- ◆ Minor permit to construct for new stationary source or modification subject to PSD permit
- ◆ Minor permit to operate for stationary source subject to Title V.

During the comment period we would specifically request comment on whether there should be other changes to the source categories in the current 18 AAC 50.300(b).

Emission Rate Basis

Minor permit to construct and operate

Each new stationary source, or modification with allowable emissions or an allowable emissions increase greater than the significant emission rates would need a minor permit.²

504. Registration

Other states

Two states use registration programs for small minor sources. Registration applies to

- Sources between 10 and 25 tpy (pte); or
- Sources between 2 and 5 – 10 tpy (actual emissions) depending on the pollutant.

These states use registration for small minor sources for air quality maintenance planning. They collect information on the number and size of small sources that may not have an adverse impact alone, but may be of concern in aggregate.

Recommendation

If the department chooses to have a registration program, the purpose would be to obtain an inventory of stationary sources that are not permitted but that could affect compliance with ambient standards, especially if sources occurred close to one another. I recommend a somewhat larger size threshold to recognize the fact that there is not likely to be as high a density as in large cities in more populous states.

Registration would apply to existing stationary sources with allowable emissions greater than the significant emission rates, except that for electric utilities powered by diesel engines the threshold is total rated capacity of 736 hp (engine output). A preapproved limit or owner requested limit would satisfy this requirement. No approval or disapproval is involved, but the registration notification must be complete.

² Previous department dispersion modeling indicates that sources emitting amounts greater than the significant emission rates may have the potential to violate or substantially contribute to violations of ambient air quality standards.

Of the other states surveyed, minor permits were generally either based on a list of insignificant sources or exemptions, or on emission rates, or both. Most Emission rate thresholds were at or below significant emission rates. Significant emission rates are the most common threshold for triggering modeling.

The registration information for existing sources would be limited to stationary source and emission unit identification and capacity, and annual actual emissions.

506-512 Avoidance permits

18 AAC 50.506 – 508 would classify the federal NSR avoidance mechanisms of Clean Units, Pollution Control Projects, and Plantwide Applicability Limits. Each of these could be established in either a minor permit issued under 50.540 – 546, or through a PSD or Nonattainment NSR permit of 50.310 – 320. All of the related provisions of the federal regulations would apply to these three mechanisms as they are used in state regulation. The classifications would be in:

- 506. Clean units
- 507. Pollution Control Projects
- 508. Plantwide Applicability Limits.

The new regulations would retain the current state avoidance mechanisms - Owner Requested Limits, and Preapproved Limits. They would be moved from the current 18 AAC 50.225 – 230 to Article 5. They would be classified in 50.510 and 512. The current name Preapproved Limit (PAL) would be changed to Pre-Approved Emission Limit (PAEL) to minimize confusion with EPA's PAL, Plantwide Applicability Limits.

514. Offsets for Nonattainment Major Stationary Source or Modification

This classification is currently in 18 AAC 50.305. Offsetting would be moved to Article 5 and would use the same permitting procedures as other minor permits. The classification section would be edited as necessary.

535. Permit Continuity.

This section explains the transition from the current permits to permits that would be classified as minor under the new system. To allow an orderly transition, all permits that are already issued as of the effective date of this section would remain in effect until they expire or are rescinded and replaced. This includes all permit conditions, even terms and conditions that would not be a part of the new minor permit. This continuity section would apply to both source specific permits and general permits.

The oil and gas permit by rule would be relocated but remain in effect. The permit by rule for fuel storage tanks will not be renewed because a permit will no longer be needed for fuel storage tanks only subject to recordkeeping under 40 C.F.R. 60, subpart Kb.

If an existing general permit expires, and the department is not going to renew it, an operator that is still required to have a permit would reapply as described in section 546 on permit renewal and revision.

540. Application

Other states

One state (MN) just has a registration program for minor sources and doesn't ask for information they would need to satisfy 40 C.F.R. 51.160.³

Other states ask for modeling, or have the ability to ask for modeling case by case, and/or ask for enough information that the agency could do screening level modeling similar to that in my recommendation.

States other than MN also typically ask for information on controlled and uncontrolled emission rates, a demonstration that emissions will comply with emission standards, and/or a certification that they will comply with emission standards.

Recommendation

As presented above under *Purpose*, the minor source program would primarily be intended to allow the department to determine if a project would comply with both the department's control strategies, and ambient standards.

All applications would contain general facility and emission unit information, and allowable and actual emissions information.

Applications for new or modified sources needing ambient air quality permits would contain information needed to determine if the stationary source would result in a violation of a control strategy or interfere with attainment or maintenance of a national standard. This would include information needed for the department to model emissions, and other emission unit information. [This is similar to what current regulations require of a non-PSD application.]

Applications for clean units, pollution control projects, plantwide applicability limits, and offset permits would contain the information described in federal regulations.

The application content for ORLs and PAELs would remain unchanged.

This section would specify that the department could require some or all of the application to be on electronic media to allow fast track permitting.^{4, 5}

³ MN does have a proposal out now asking for comment on whether they should ask for ambient modeling.

⁴ It may be some time before on-line permitting and the supporting data base are available. However, permit applications submitted as electronic files on either a CD or floppy disk might be available much earlier, and may greatly shorten some aspects of permitting. Screening level ambient analysis is an example. Information in predefined fields could be easily imported into modeling software, making the setup and running of the model very quick.

Another example would be completeness review. Standardized electronic forms could be designed to print out only after all required information is entered, and to identify all fields and forms where information is needed based on the answers given. This could make it immediately obvious to both applicant and review whether all forms and information are submitted.

542 Review and Issuance

Other states

The survey did not look at what procedures other states use for source specific permits, only when they used streamlined procedures. EPA Region 10 did identify one innovative local regulation currently under development. In general, the available administrative procedures are limited by AS 46.14.170 and 40 C.F.R. 51.161. See the discussion below.

Recommendations

The primary intent of minor source permitting is given under the statement of purpose at the beginning of this document. Before issuing a general permit or permit by rule, the department will determine that a stationary source is reasonably assured of complying with both ambient standards and the department's control strategies, if the source complies with the GP or PBR. For other permits, those determinations will be made during the source specific review and issuance.

Sources not needing additional department approval

Under this section the following would not need a permit action. The operation could begin [or for registration, continue] as soon as the department received a complete notification. The operator would not need to await department action. [The electronic notification form would automatically tell the operator whether the notification is complete.]

- ◆ Operation under a permit by rule -- oil and gas permit by rule and any other permits by rule developed later
- ◆ Minor source registration
- ◆ Taking a pre-approved emission limit.

General Permits

Once the on-line permitting and data base are established, general permits could be approved on-line as soon as the application is submitted. There would be no practical difference between an application and a simple notification. If on-line permitting is not immediately available, we could design electronic forms that let the applicant know as soon as the form is filled out whether the application will be approved. The same form would let the department know whether, based on the information in the application the source qualifies. The review time would be very short.

⁵ Until the department decides how we will accept electronic signatures, the applicant will have to submit a hard copy with a signature along with the CD, and perhaps a hard copy of the entire application, along with the signed statement that the two are identical.

Source Specific Permits

Under AS 46.14.170(d), owner requested limits and minor ambient air quality permits would require department approval within 30 days after a public comment period, or 30 days after receipt of a complete application if there is no public comment period. 40 C.F.R. 51.161 says that procedures to issue minor permits under 40 C.F.R. 51.160 must provide the opportunity for public comment to include a 30 day comment period.

EPA Region 10 is considering approval of rules by Washington's Southwest Clean Air Agency (SWCAA) that would allow a 15 day on-line notice of the receipt of an application instead for certain minor permits. SWCAA would provide a full 30 day comment period if any person requests it. Some SWCAA minor permits would always need the 30 day comment period. Among these are: any net emission increase (of actual or potential emissions) over the significant emission rate; a permit needing ambient analysis or RACT; changes to an existing permit condition; or a limit on the source's potential to emit. The agency would be required to consider all comments received.

SWCAA's regulations are not final yet, and so have not been sent to EPA as a SIP submittal. Region 10 has been working with SWCAA during the regulation development.

The types of projects that would not have public comment under SWCAA are limited. If we used a similar approach, the department could use a 15 days opportunity to request a public comment period for projects that the department judged would intrinsically comply with ambient standards, or perhaps for which department screening modeling showed very low ambient impacts – below some defined threshold, so that the applicant or department would not need to do any refined modeling beyond the initial screening.

Compliance with Ambient Standards

For source specific permits, the applicant would not initially submit ambient modeling. The application would include fields containing information to be imported into modeling input files. The department would use the information in the application for modeling with a screening meteorological data set. If the screening modeling predicts a violation of ambient standards, the department would require the owner or operator to do a more refined modeling, provide information so that the department could refine the modeling, or make necessary changes to the proposed project. The department could judge that some projects would intrinsically comply with ambient standards and the department would not do the screening modeling. These could be projects with relatively low emissions and high buoyancy or vertical momentum, such as a tall smokeless flare.

The department would also ask for additional information or changes if the department's screening modeling predicts concentrations close to the standards if there is a nearby neighboring stationary source of emissions greater than a

significant emission rate, and the department did not include the nearby source in the dispersion modeling.

The department would only issue a source specific permit after determining that the project would meet all of the criteria for the classification, and for an ambient air quality permit, the source would comply with control strategies and would not result in a violation of an ambient standard or control strategy.⁶

544. Content

Other states

The content and level of detail of minor source permits MRR conditions vary widely for the surveyed states. On one hand, the Minnesota registration permit is typically a one page permit, and for Option D only requires the calculation and recordkeeping of actual emissions each month, with an annual emission inventory filing along with the annual emission fee payment. On the other extreme, Arizona's minor source permits are very similar to major Title V/PSD permits, with extensive and detailed MRR requirements for both source-specific limits as well as SIP, NSPS, etc., limits and requirements. New Mexico's GP for asphalt plants contains MRR requirements including such items as monthly opacity tests (using Method 22), differential pressure monitoring for baghouses, and data on hours of operation, production rates, and haul truck activity levels. Oregon's asphalt plant GP MMR requirements include initial performance tests, recordkeeping (production rates, upset conditions, and complaints received at the facility), and annual reporting of the data (ODEQ performs site inspections on a routine basis, and more frequently if complaints are received). Clearly, even the streamlined minor source permits such as GPs typically include detailed MRR conditions.⁷

Recommendations

Permit content for classifications described in federal regulation would be as necessary to satisfy the federal regulation. These classifications are Clean Units, Pollution Control Projects, Plantwide Applicability Limits, and permits for nonattainment offsets.

Other avoidance permits would require conditions as necessary to support the avoidance conditions.

The subsection for ambient air quality permit content would use language similar to the existing 18 AAC 50.320(a)(2). The intent of this language is to allow the department to require initial performance testing and ongoing monitoring, record keeping, and reporting (MR&R) only as needed. For example, conditions for ambient protection and permit

⁶ For minor permit modeling, the APP may estimate the maximum percentage of the ambient standard a nearby source is likely to contribute. This would be based on results of dispersion modeling APP would do for this purpose using data from pairs or groups of sources in various parts of the state. If, for example, we could not find impacts of more than 50% of the standard from neighboring sources (including background) at the point of maximum impact of another source, then any screening modeling could be approved if impacts were less than 50% of the standard. This would show the standards are protected, without having to show impacts less than the significant impact levels, or extensively modeling all nearby sources.

This approach would only be appropriate for minor permit modeling where there is no evaluation of the increment.

⁷ This paragraph is section 5.8 of RTP's report.

avoidance would have appropriate MR&R. So would particulate matter for sources that require effective use of control equipment. But SO₂ and particulate would not need to be tracked for minor sources when inherently clean fuel is used, except for fuel records when the unit is designed to be able to burn other fuels as well.

545. Duration

Other states

Some streamlined permits from other states do not expire. Others use a system that includes 5 year renewals.

Recommendations

Permits that do not require renewal have the advantage that they minimize the administrative burden for both the agency and the operator.

Renewing permits on a fixed schedule such as every 5 years has the advantages that

- It helps the agency identify
 - all applicable requirements, including any new requirements,
 - if any prohibited changes have occurred, and
- It provides the opportunity to improve the permit terms and conditions based on the agency and source's experience operating under the permit. This advantage is probably more important for permits that apply generally, since they must be generally protective of public health without being too stringent for individual operators.

Clean Units, PCPs, and PALs

The duration for these categories is spelled out the federal NSR regulations.

Ambient air quality permits

The permit would be only a minor permit to construct for any stationary source that is or would become a Title V major source. The conditions would remain in effect indefinitely unless changed through another Title I permit.

A permit for a stationary source that is not subject to Title V would be a minor permit to construct and operate. Source specific permit conditions would continue until changed by another Title I permit. Other conditions would continue until replaced or renewed by a renewal permit.

General Permits

Whether a general permit needs to be renewed could be established in either the regulations or in each general permit. I recommend a 5 year renewal. The administrative burden for operators is minimal, since the application will probably be done quickly on line. Portable sources now using general permits frequently change ownership, configuration, and location. For the department to be able to effectively use its resources in managing air quality related to these sources, it is

reasonable to have information to allow the department to periodically revise its inventory.

Avoidance Permits

There would be no reason to renew permits that only establish avoidance conditions. These conditions and the related monitoring would remain in effect until the operator discontinues the operation or changes the conditions through another Title I permit. This is consistent with current practice.

Registration

Registration would be a one time initial registration. However, the registration would also require periodic reports on actual emissions.

546. Renewal and Revision

This section would provide that for permits that need to be renewed, the renewal applications would be done in time to allow the department to issue the renewal permit or approval to operate under the permit on time.

It would provide an application shield for anyone submitting a complete application.

It would also have a subsection implementing the federal language for increasing a PAL during the PAL effective period.

560. General Permits

Other states

General permits (“GPs”) are very common, and, among the states selected for review, only Colorado and Utah do not use this streamlining mechanism (although Colorado has an asphalt industry work group developing a draft GP). As indicated in Table 3, seven of the ten States with GPs require them to be renewed, and only Minnesota, New Mexico, and Oklahoma developed GPs that do not expire. Also, GPs in the surveyed states are available only to facilities that are minor Title V sources (i.e., Type I sources), with the exception of Minnesota.⁸

GPs for asphalt plants, soil remediation, and crushers can be found in 3 to 8 of the 12 states surveyed, depending on the source type. The permits contain emission and operational restrictions specific to these source types.

Recommendations

This section would allow an owner to operate under a general permit rather than a source specific permit issued under 18 AAC 50.502 – 546. A minor general permit would work in the same way as a Title V general permit. It would be issued after public comment.⁹ After it is issued, an owner or operator would apply to operate under the general permit. There would be no additional public comment. Construction or operation would be authorized as soon as the application is found to be complete. That finding would depend

⁸ RTP’s report, page 15.

⁹ Required by 40 C.F.R. 51.161.

on the stationary source meeting the qualifying criteria. The authorizations would apply only to equipment and locations identified in the application or identified later as provided in the permit. [Any equipment or location added later would still have to meet the qualifying criteria.]

General permits could be based on ambient analysis and would include any conditions needed for compliance with ambient standards. All other requirements for application and permit content would be comparable to the corresponding requirements in 18 AAC 50.540 and 544 for the same source classification(s).

The application forms would be available to the applicant in electronic format. On-line forms could provide automatic and immediate approval. If on-line permitting is not yet available, applications submitted on a CD or maybe floppy disk could use forms designed to tell both the applicant and the department immediately whether the application is complete and if they meet all of the criteria based on the information provided.

570. Oil and Gas Permit by Rule

This permit by rule would be moved from the current 18 AAC 50.390, with the necessary editorial changes. The PBR could be used in lieu of the requirement currently in 18 AAC 50.300(b), which would be moved to Article 5.

Other permits by rule may be added later as needed in subsequent sections. There is not time in this rulemaking to develop individual general permits or permits by rule.

**Summary Table for State Evaluations –
Administrative Procedures**

State	de minimis Threshold?	de minimis Threshold Level* (Basis)	Registration?	Registration Types and Coverage	Exemptions ?	Exemption Types and Coverage
AK	--	--	--	--	X	By default if not listed under 18 AAC 50.300 'Classifications'
AZ	--	--	--	--	X	Insignificant list of sources
CO	X	<5 tpy VOC, PM10 <10 tpy TSP, CO, SO2, NOx (unc. actual)	X	APEN only if uncontrolled actual emissions \geq 2 to 5 tpy (attainment); APENs also submitted with construction permits	X	List of sources exempted from Air Pollution Emission Notices (APENs) and construction permits
MN	X	<25 tpy PM10 <50 tpy SO2 <100 tpy NOx, CO, VOC, PM (PTE)	--	--	X	List of sources not required to obtain permit
MS	--	--	--	--	X	
NC	--	--	X	NC has the regulatory authority for source registration but does not currently use this authority	X	Non Title V program contains a list of sources exempted from permitting. Title V program exemption based solely on a PTE of less than 5 tpy for criteria pollutants and HAP emissions less than 1000 lb/yr.

NJ	--	--	--	--	X	List of sources exempted from construction permits
NM	X	NOI: <10 tpy Constr: <10 lb/hr or 25 tpy (PTE)	X	Notice of Intent (NOI) if emissions between 10 and 25 tpy	X	No Permit Required (NPR) and list of exemptions
OK	X	<5 tpy (actual)	--	--	X	List of sources exempted from permitting
OR	--	--	--	--	X	Allows changes without permit modification if emissions below Generic Plant Site Emission Limit (PSEL)
SC	--	--	--	--	X	Both TV and non-TV use the same exempt emissions unit list
TX	--	--	--	--	X	List of de minimis facilities or sources
UT	X	<5 tpy (actual)	--	--	X	Flexibility changes, replacement-in-kind, reduction of air contaminants, de minimis emissions from soil remediation
* Sources are exempted unless subject to an NSPS or NESHAP.						

Summary Table for State Evaluations
- Streamlining Options

States	Streamlining						General Permit and/or						
	Procedures						Permit by Rule For:						
	General Permits (GP)	GP only if Title V Minor?	GP Renewable?	Permits by Rule	Other	Other -Type	Asphalt Plants	Soil Remediation	Incineration	Rock Crushing	Oil & Gas	Other	Other -Type
AK	X	No	Yes	X	--	--	X	X	--	X	X	X	Diesel electric generators, small boilers, tanks
AZ	X	Yes	Yes	--	--	--	X	X ¹	--	X	--	X	Boilers (including IC engines), stationary generators, and concrete batch plants
CO	--	--	--	--	X	Self-certification procedures	draft	--	--	--	--	--	--

MN	X	No ²	No	--	X	"Registration" permit for sources subject to certain NSPS and major from PTE but actuals ≤50% of Federal threshold, 4 types, no public notice, no expiration; insignificant modifications	Let expire	--	--	X	--	X	General manufacturing (cleaning, painting, coating, grinding, and fuel combustion)
MS	X	Yes	Yes	--	X	Streamlining exemptions	X	--	--	--	--	X	Permits are multi-media (air/water); developing for concrete batch plants
NC	X	Yes	Yes	--	X	Optional construction registration, follow-up with more formal application	X	--	--	X	--	X	Emergency generators and concrete batch plants
NJ	X	Yes	Yes	--	--	--	--	X ¹	--	--	--	X	Boilers and heaters <10 MMBtu/hr, and emergency generators
NM	X	Yes	No	--	--	--	X	--	--	X	X	--	--

OK	X	Yes	No	X ³	X	Some minor modifications allowed without action by source	X	--	X ⁴	X	--	X	Organic liquid storage, petroleum liquid storage, both include IC engines
OR	X	Yes	Yes	--	X	Short Term Activity Permit for unexpected or emergency activities (≤60 days)	X	X ⁵	X ⁵	X	--	X	Ready-mix concrete, boilers, halogenated solvent degreasers
SC	X	Yes	Yes	--	--	--	X	--	--	--	--	X	Fuel combustion sources
TX	X	No ⁶	Yes	X	X		X	X	--	X	X	X	Asphalt silos, combustion sources, concrete batch, and tanks, storage and loading
UT	--	--	--	--	--	--	--	--	--	--	--	--	--

¹ For gasoline contaminated sites.

² MN has a Part 70 general operating permit for General Manufacturing.

³ For PM emissions, VOC storage and loading facilities; actual emissions < 40 tpy.

⁴ Allowable emission limits for incinerators.

⁵ "Simple" Air Contaminant Discharge Permit (ACDP) rather than a General Permit.

⁶ GPs require a certified registration stating maximum emission rates to avoid applicability of Title V, but PBRs are applicable to sources with emissions up to 250 tpy NO_x and CO.

Summary Table for State Evaluations
- Ambient Analysis Provisions

	Ambient Impact Analysis						State Modeling Contact	Phone Number
State	Modeling Required for Minor Permits?	If modeling required, by Regulations or Policy?	Are there Modeling Emission Thresholds (tpy or lb/hr basis)?	Is Modeling only for NAAQS or also PSD Increments ?	Comments	If GPs, PBR, or Registration options are available, did their development include ambient modeling?		
AK	Yes	Regs	Tpy				Allan Schuller	
AZ	Yes ¹	Policy	No thresholds	NAAQS	Many of the GP permit limits directly based on modeling	Yes	Peter Hyde	(602) 771-7642
CO	Yes ¹	Policy	PSD SER in tpy and lb/hr	NAAQS	Regs require NAAQS compliance analysis for minor sources, GP is draft	Yes	Chuck Machovec	(303) 692-3249
MN	No	--	--	--	New Regs proposed that include modeling for minors	Yes	Dennis Becker	(651) 297-7364
MS	No	--	--	--	Modeling infrequently required on a case-by-case basis, if dense source area	No	Mya Rao	(601) 961-5242

